

 <b>CALIFORNIA ENVIRONMENTAL PROTECTION AGENCY</b> <b>AIR RESOURCES BOARD</b>	<b>AB VOLVO PENTA</b>	<b>EXECUTIVE ORDER U-R-014-0090</b> New Off-Road Compression-Ignition Engines
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Pursuant to the authority vested in the Air Resources Board by Sections 43013, 43018, 43101, 43102, 43104 and 43105 of the Health and Safety Code; and

Pursuant to the authority vested in the undersigned by Sections 39515 and 39516 of the Health and Safety Code and Executive Order G-02-003;

**IT IS ORDERED AND RESOLVED:** That the following compression-ignition engines and emission control system produced by the manufacturer are certified as described below for use in off-road equipment. Production engines shall be in all material respects the same as those for which certification is granted.

MODEL YEAR	ENGINE FAMILY	DISPLACEMENT (liters)	FUEL TYPE	USEFUL LIFE (hours)
2005	5VPXL12.1ACB	12.1	Diesel	8000
SPECIAL FEATURES & EMISSION CONTROL SYSTEMS			TYPICAL EQUIPMENT APPLICATION	
Direct Diesel Injection, Turbocharger, Charge Air Cooler, Engine Control Module, Smoke Puff Limiter			Generator Set	

The engine models and codes are attached.

The following are the exhaust certification standards (STD) and certification levels (CERT) for hydrocarbon (HC), oxides of nitrogen (NO<sub>x</sub>), or non-methane hydrocarbon plus oxides of nitrogen (NMHC+NO<sub>x</sub>), carbon monoxide (CO), and particulate matter (PM) in grams per kilowatt-hour (g/kW-hr), and the opacity-of-smoke certification standards and certification levels in percent (%) during acceleration (Accel), lugging (Lug), and the peak value from either mode (Peak) for this engine family (Title 13, California Code of Regulations, (13 CCR) Section 2423):

RATED POWER CLASS	EMISSION STANDARD CATEGORY		EXHAUST (g/kW-hr)					OPACITY (%)		
			HC	NO <sub>x</sub>	NMHC+NO <sub>x</sub>	CO	PM	ACCEL	LUG	PEAK
225 ≤ kW < 450	Tier 2	STD	N/A	N/A	6.4	3.5	0.20	N/A	N/A	N/A
		CERT	-	-	5.8	0.7	0.09	-	-	-

**BE IT FURTHER RESOLVED:** That for the listed engine models, the manufacturer has submitted the information and materials to demonstrate certification compliance with 13 CCR Section 2424 (emission control labels), and 13 CCR Sections 2425 and 2426 (emission control system warranty).

Engines certified under this Executive Order must conform to all applicable California emission regulations.

**This Executive Order is only granted to the engine family and model-year listed above. Engines in this family that are produced for any other model-year are not covered by this Executive Order.**

Executed at El Monte, California on this 21<sup>ST</sup> day of December 2004.



Allen Lyons, Chief  
Mobile Source Operations Division

# Engine Model Summary Form

Manufacturer: **AB VOLVO PENTA**  
 Engine category: **Nonroad CI**  
 EPA Engine Family: **5VPXL12.1ACB**  
 Mfr Family Name: **TAD124XGE**  
 Process Code: **New Submission**

Attachment  
 U-R-014-0090

1.Engine Code	2.Engine Model	3.BHP@RPM (SAE Gross)	4.Fuel Rate: mm/stroke @ peak HP (for diesel only)	5.Fuel Rate: (lbs/hr) @ peak HP (for diesels only)	6.Torque @ RPM (SEA Gross)	7.Fuel Rate: mm/stroke@peak torque	8.Fuel Rate: (lbs/hr)@peak torque	9.Emission Control Device Per SAE J1930
7	TAD 1242GE	534@1500	355@534	179@534	1869@1500	355@1869	179@1869	DDI, T <sub>G</sub> CAK
8	TAD 1242GE	602@1800	359@602	217@602	1757@1800	359@1757	217@1757	2000
9	TAD 1241GE	486@1500	320@486	158@486	1704@1500	320@1704	158@1704	
10	TAD 1241GE	527@1800	300@527	180@527	1538@1800	300@1538	180@1538	
5	TAD 1240GE	429@1500	277@429	139@429	1503@1500	277@1503	139@1503	
6	TAD 1240GE	462@1800	259@462	156@462	1350@1800	259@1350	156@1350	